Aerosol Exposure Control - Homogenizer

Lab homogenizers create aerosols by imparting energy to break surface tension, suspending liquid or solid particles into the air.

HOMOGENIZER: Safety Practices

- Whenever working with biohazardous materials, homogenizers should be used in a biosafety cabinet, fume hood or an enclosed system.

Enclosed systems use sealed chambers to contain the sample and prevent aerosol release.

- Use vessels that are appropriately sized for the task, which can help reduce foaming and aerosol formation.
- Avoid overfilling vessels to prevent splashing and pressure build-up.
- Keep the homogenizer's tip submerged in the liquid to minimize the splashing and aerosolization of the fluid surface.

- For bead beater homogenizers, fill the vial at least one-half to two-thirds full with beads, then add sample filling the tube almost to the top to exclude air.
- For enclosed systems, after a procedure is complete, wait for about 20 minutes before opening the chamber to allow any aerosols to settle.

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